

Updated Budget

Mini-Solar Power Station

SD1203

8/29/2012

Group: Brian Amann
Stephanie Erickson
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Advisors: Dr. Yuvarajan
Jeff Erickson

Updated Budget

	Project Name:	Mini-Solar Power Station				
	Project Number:	SD1203				
Sun Simulator						
Mechanical Hardware	Cost/Unit	#	Purchased	Total Cost	Supplier	Notes
3/4" x 10' EMT (or equivalent)	\$6.17	2		\$12.34	Home Depot or Grainger	
Wood (2x10-10',2x4-8',4x8 plywood)	\$35.97	1		\$35.97	Home Depot or Grainger	
4 in Heavy Duty Tee Hinge	\$3.87	2	X	\$7.74	Grainger Industrial Supply	Part#: 1RCT3
R40 5" Dia., 250W, 120V Lamp	\$21.84	1	X	\$21.84	Grainger Industrial Supply	Part#: 1E295
Heat Lamp Dome	\$18.00	1	X	\$0.00	Free from NDSU	
Linear Actuator	\$220.00	1		\$220.00	Search EBay for better price	Unipolar
Stepper Motor	\$220.00	1		\$220.00	Search EBay for better price	Unipolar
Ball Bearing Sheave	\$11.91	2	X	\$23.82	Grainger Industrial Supply	Part#: 5RTD5
Flat Mount Block Pulley, 2"	\$7.73	2	X	\$15.46	Grainger Industrial Supply	Part#: 4JX69
1/16, 50ft, 7x19 steel cable	\$39.80	1	X	\$39.80	Grainger Industrial Supply	Part#: 2TAY9
Solid State Relay	\$30.00	1	X	\$0.00	Free from NDSU	
Satellite Tracking System						
Mechanical Hardware						
Satellite Dish	\$50.00	1	X	\$0.00	Provided by Brian	
Wood and Metal for base structure	\$40.00	1		\$40.00	Home Depot or Grainger	
Mylar	\$11.99	1	X	11.99	www.amazon.com	Part#: VMY130
Stepper Motor	\$220.00	1		\$220.00	Search EBay for better price	Unipolar
Linear Actuator	\$220.00	1		\$220.00	Search EBay for better price	Unipolar
5' Copper Pipe 3/4"	\$23	1		\$23.00	Grainger Industrial Supply	
Tubing Installation	\$8	1		\$8.00	Grainger Industrial Supply	
3' Plastic Tubing 3/4"	\$1.29	1		\$1.29	Home Depot or Grainger	
12V rechargeable battery	\$30.00	3		\$90.00	Search EBay for better price	
NI USB 6008 DAQ	\$169.00	1	X	\$0.00	Free from NDSU	
Electrical Components						
ZTX1053a (nnp transistor)	\$0.98	20	X	\$0.00	Free from NDSU	
MCP602 (OPAMP)	\$0.62	16	X	\$0.00	Free from NDSU	
PIC18F4620 (Microcontroller)	\$7.92	5	X	\$0.00	Free from NDSU	
ECS-200-20-46X (20 MHz Crystal)	\$0.46	5	X	\$0.00	Free from NDSU	
Photocell 80k-240kΩ	\$1.86	15	X	\$0.00	Free from NDSU	
LM7805 (5V voltage regulator)	\$0.61	5	X	\$0.00	Free from NDSU	
LM7812ACT (12V voltage regulator)	\$0.69	2	X	\$0.00	Free from NDSU	
Estimated Actual Cost of Project				\$1,211.25		

Note: "Cost/Unit" is the "true value" of the item.

Note: "Total Cost" is the "acquired cost" of the item. For items with a "Total Cost" of \$0.00 please refer to the "Supplier" column for supplier.

Note: # indicates the quantity of the item for each item in row or column.

Note: An X in the "Purchased" column indicates the item was ordered and received.

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Approval and Sign off:

Dr. Yuvarajan: _____ Date: _____

Jeff Erickson: _____ Date: _____

Brian Amann: _____ Date: _____

Stephanie Erickson: _____ Date: _____

Qingyu Meng: _____ Date: _____

Kaixun Wang: _____ Date: _____